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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,205	08/23/2001	Frederick A. Myers	1606001/0482494(511)	1187

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EXAMINER

OLTMANS, ANDREW L

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 10/07/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/938,205	Applicant(s) MYERS ET AL.	
	Examiner Andrew L Oltmans	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 61 is objected to because of the following informalities:

Claim 61 contains no period at the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1, lines 17-19 recite, “wherein the core particle is an oxide selected from...zinc and copper... silica and mixtures thereof”. The claim is indefinite for two reasons. First, it is unclear how all the components recited could be oxides. For example, it is unclear how a sulfate of calcium can be an oxide? Second, in view of the Markush format, it is unclear what group the oxide is selected from, see MPEP 2173.05(h). For example, does the oxide group end at “copper” or does the group end at “mixtures thereof”? If the group was intended to end at “copper”, the use of the word “and” in line 18 prior to the word “mixtures” is improper.
- b. Claim 4, line 1 recites “a nickel alloy”. However, none of the components listed in lines 2 and 3 are nickel alloys. Therefore, the scope of the claim is unclear.

- c. Regarding claim 6, the phrase "such as" (line 1) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- d. Claim 29, line 3 recites "an amount of at least 0.02". The claim is indefinite because it is unclear how much (i.e. what units) boric acid is contained in the phosphating composition.
- e. Regarding claim 34, the phrase "such as" (line 10) renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).
- f. Claim 53, line 1, recites a "second coating". However, it is unclear how the second coating limits the claim. There is no antecedent basis for a first coating. Claim 43, from which 53 ultimately depends, recites only that the "zeolite particles retain the antibacterial metal ions", but does not recite a coating. Therefore, it is unclear what "second coating" means.
- g. Claims dependent upon the above are likewise rejected under this statute.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Beck 5,634,986 in view of Japanese Patent JP 03-188168 A

5. Claims 1-3, 7-20, 34-36, 38-39, 43-52, 56-60 and 69-71 are rejected under 35

U.S.C. 103(a) as being unpatentable over Beck 5,634,986 (Beck) in view of Japanese Patent JP 03-188168 A (JP '168).

Beck teaches a method of coating metal, including aluminum, aluminum magnesium alloy, aluminum manganese alloy, aluminum copper alloy and aluminum silicon alloy, iron-based and zinc surfaces, as recited in claims 1-2, 4, 7-11, and 69 (col 1, line 9; col 24, lines 49-55), and the resultant coated product. Beck teaches the process as including a continuous process for treating sheets or a process for treating formed products (i.e. cans), as recited in claim 3 (col 3, lines 63-64). Beck teaches an exemplified process for preparing a substrate for a polymer coating as including a pre-wash, an acid or alkaline cleaning, an acid rinse, conversion coating (i.e. an interlayer formed for adhesion promotion) and water rinse, wherein a polymer coating is then coated on the surface and dried (i.e. hardened), as recited in claims 1, 12, and 17-18 (col 13, line 66 to col 14, line 15 and col 16, line 67). Beck teaches that the cleaning compositions may include the additives instantly claimed and are contacted at the conditions instantly claimed, as recited in claims 13-16, (col 15, lines 16-20, 25-31, 44-45; col 16, lines 1-5). Beck teaches that the conversion coating can be any conversion coating known in the art, including treatment solutions based on chromium phosphate, phosphate titanium, zirconium and hafnium, as recited in claims 19-20 (col 12, lines 21-41; col 16, lines 49-55). Beck teaches that the claimed polymer and polymer coating additives are coated on the surface may include a antimicrobial or biocidal agent, as recited in claim 1, 34-35 and 60 (col 1, lines 47-55).

Beck fails to meet all the limitations of the instant claims in that Beck does not explicitly teach the antibiotic powder instantly claimed, nor the increasing of stain resistance or fingerprint resistance.

JP '168 teaches method for treating aluminum substrate, including aluminum beverage containers, wherein the method includes coating the metal surface with a 0.5-5 parts per 100 solid resin composition (i.e. an epoxy resin, a vinyl chloride resin or an acryl-modified epoxy resin) that includes an antibacterial zeolite (i.e. core particle), wherein part of whole (i.e. including less than 90%) of the ion-exchangeable ions are replaced by 0.1-15% antibacterial metallic ions (i.e. antimicrobial metal component) such as silver, copper, zinc or tin, as recited in claims 1, 34-36, 38-39, 42, 44-46, 48-52 (see abstract and Table 1, page 6). JP '168 teaches that the zeolite composition includes the additional metals instantly claimed, as recited in claims 43 and 47 (page 4, col 2). JP '168 teaches that the antibacterial zeolite has a mean particle diameter of 0.2-5 μ m, as recited in claims 56-59. (abstract). JP '168 teaches that the coating method provides a sanitary surface, having antibacterial properties (abstract).

One of ordinary skill in the art at the time that the invention was made would have found the invention to be obvious because one of ordinary skill in the art would have been motivated to provide the composition of Beck with the desirable properties of having a sanitary surface having antibacterial properties suitable for use in beverage containers, as taught by JP '168.

With respect to increasing of stain resistance or fingerprint resistance recited in claims 70-71, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the process steps taught by the reference are the same as the process steps recited in the claims (i.e. coating a conversion coated metal surface

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with a polymer coating comprising an antimicrobial component) and therefore one of ordinary skill in the art would expect that the products resulting from the process taught by the reference would be the same as the product resulting from applicant's claimed process, including the product's resistance to staining and fingerprints.

“Where the claimed and prior art products are identical or substantially identical in structure or composition or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established, In re Best 195 USPQ 430, 433 (CCPA 1977). ‘When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.’ In re Spada, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. In re Best 195 USPQ 430, 433 (CCPA 1977).” see MPEP 2112.01. [emphasis added by examiner]

Beck 5,634,986 in view of Japanese Patent JP 03-188168 A in further view of Musingo et al.

5,954,892

6. Claims 21-22, 24-26, 28, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck 5,634,986 (Beck) in view of Japanese Patent JP 03-188168 A (JP '168) in further view of Musingo et al. 5,954,892 (Musingo).

Beck and JP '168 teach and are applied as set forth above in paragraph 5.

Beck and JP '168 fail to meet all the limitations of the instant claims in that Beck and JP '168 do not explicitly teach the particular conversion coating compositions and conditions instantly claimed.

Musingo teaches a zinc phosphating method and composition wherein the composition includes the divalent metals instantly claimed, an overlapping amount of phosphate, the claimed oxidant, the additional compound instantly claimed, the activator fluoride and concentration instantly claimed, and the step of drying the conversion coating, as recited in claims 21-22, 24-26, 28 and 31 (col 3, lines 38-53; col 4, lines 12-26, 34-39; col 6, lines 55-56). Musingo teaches

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that the coating formed from the taught process improves corrosion resistance and promotes adhesion for subsequently applied coatings (col 3, lines 15-21).

With respect to the conversion coating composition and conditions claimed in instant claims 21-22, 24-26, 28, 31-33, one of ordinary skill in the art at the time that the invention was made would have found the invention to be obvious because one of ordinary skill in the art would have been motivated to provide Beck with the conversion coating composition and conditions of Musingo in order to provide Beck with the desirable properties of improved corrosion resistance and improved adhesion of subsequent coatings, as taught by Musingo.

With respect to the temperature of drying recited in claim 32-33, one of ordinary skill in the art at the time the invention was made would have found the particular drying temperature obvious because the reference is a U.S. patent having a presumption of validity wherein one of ordinary skill in the art would find its disclosure enabling. In view of the fact that one of ordinary skill in the art would find the disclosure enabling, one of ordinary skill in the art would find it obvious to heat the coated metal to an appropriate temperature that would provide a dry surface, as taught in col 6, line 55-56 of Musingo.

Allowable Subject Matter

7. Claims 4-6, 23, 27, 29, 30, 37, 40-42, 44, 53-55, 61-68 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

- a. Claims 4-6 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the particular substrate instantly claimed.
- b. Claims 23 and 27 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the divalent metals or silicate instantly claimed.
- c. Claim 29 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the phosphating composition including the boric acid in the amount claimed.
- d. Claim 30 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the interlayer thickness instantly claimed.
- e. Claim 37 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the polyester polymer claimed.
- f. Claims 40-42 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the particular zeolites instantly claimed.

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g. Claims 53-55 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the anti-microbial powder coating instantly claimed.

h. Claims 61-68 would be allowable over the prior art, under the above conditions, because the prior art fails to teach, either alone or in combination, the method instantly claimed wherein the method includes the particular means of application instantly claimed.

Conclusion

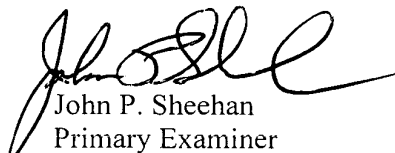
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew L. Oltmans whose telephone number is 703-308-2594. The examiner can normally be reached 8:30-5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

ALO

September 30, 2002


John P. Sheehan
Primary Examiner
Art Unit 1742